

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|--------------|--|-------------|-----------------|
| Applicant : | Rabinowitz et al. | Art Unit : | 3662 |
| Serial No. : | 11532736 | Examiner : | Phan, Dao Linda |
| Filed : | 9/18/2006 | Conf. No. : | 3361 |
| Title : | POSITION LOCATION USING DIGITAL VIDEO BROADCAST TELEVISION SIGNALS | | |

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §§ 1.56 and 1.97-98

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is a modified form PTO-1449 listing documents for consideration by the Examiner.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of documents, or that inclusion of a document in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

- ☒ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first office action on the merits, whichever event last occurred;
- ☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;
- ☐ after three months from the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:

- ☐ attached hereto is the fee set forth under 37 CFR § 1.17(p) for submission of this Information Disclosure Statement under 37 CFR § 1.97(c); OR
- ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
 - ☐ each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
 - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement;
- ☐ before the payment of the issue fee but after the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:
 - ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
 - ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; or
 - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement; AND
 - ☐ attached hereto is the fee set forth under 37 CFR § 1.17 (p) for submission of this Information Disclosure Statement under 37 CFR § 1.97(c); OR
- ☐ after the payment of the issue fee. Applicant requests that the information contained in this Information Disclosure Statement be placed in the file according to 37 CFR § 1.97(i), although the information may not be considered by the USPTO.
- ☒ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application No. 09932010, filed on 8/17/2001, and the documents cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).
- ☐ Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not received by any individual designated in 37 CFR § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement. 37 CFR § 1.704(d).

Applicant : Rabinowitz
Serial No. : 11532736
Filed : 9/18/2006

Attorney's Docket No.: RSM003002

Page: 3

- ☒ Applicant submits that no fee is required for the consideration of this Information Disclosure Statement.
Consideration of the listed documents and favorable action are respectfully requested.

Date: November 18, 2006
Law Office of Richard A. Dunning, Jr.
343 Soquel Avenue, Suite 311
Santa Cruz, CA 95062
Telephone: 831.420.0561
Facsimile: 831.576.1419

Respectfully submitted,
/Richard A. Dunning, Jr. #42502/
Attorney for Applicant

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

| | | |
|----------------------------------|-------------------|------|
| Appl. No. & Conf. No. | 11532736 | 3361 |
| Filing Date | 9/18/2006 | |
| First Named Inventor | Rabinowitz et al. | |
| Group Art Unit | 3662 | |
| Examiner Name | Phan, Dao Linda | |
| Attorney Docket Number | RSM003002 | |

U.S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|--------------------|-----------------------|----------------------|-----------------------------------|---|--|---|
| | | Number | Kind Code ² (if known) | | | |
| | A | 4,555,707 | | Connelly | 11-26-1985 | |
| | B | 4,652,884 | | Starker | 03-24-1987 | |
| | C | 4,700,306 | | Wallmänder | 10-13-1987 | |
| | D | 4,894,662 | | Counselman | 01-16-1990 | |
| | E | 5,045,861 | | Duffett-Smith | 09-03-1991 | |
| | F | 5,157,686 | | Omura et al. | 10-20-1992 | |
| | G | 5,166,952 | | Omura et al. | 11-24-1992 | |
| | H | 5,271,034 | | Abunza | 12-14-1993 | |
| | I | 5,323,322 | | Mutler et al. | 06-21-1994 | |
| | J | 5,398,034 | | Spilker, Jr. | 03-14-1995 | |
| | K | 5,481,316 | | Patel | 01-02-1996 | |
| | L | 5,504,492 | | Class et al. | 04-02-1996 | |
| | M | 5,510,801 | | Engelbrecht et al. | 04-23-1996 | |
| | N | 5,604,765 | | Bruno et al. | 02-18-1997 | |
| | O | 5,648,982 | | Durrant et al. | 07-15-1997 | |
| | P | 5,774,829 | | Cisneros et al. | 06-30-1998 | |
| | Q | 5,920,284 | | Victor | 07-06-1999 | |
| | R | 5,952,958 | | Spears et al. | 09-14-1999 | |
| | S | 5,963,311 | | Davies et al. | 09-14-1999 | |
| | T | 6,016,119 | | Krasner | 01-18-2000 | |
| | U | 6,078,284 | | Levanon | 06-20-2000 | |
| | V | 6,094,168 | | Duffett-Smith et al. | 07-25-2000 | |
| | W | 6,107,959 | | Levanon | 08-22-2000 | |
| | X | 6,137,441 | | Dai et al. | 10-24-2000 | |
| | Y | 6,147,642 | | Perry, et al. | 11-14-2000 | |
| | Z | 6,181,921 | | Koniet, et al. | 01-30-2001 | |
| | AA | 6,201,497 | | Snyder, et al. | 03-13-2001 | |
| | AB | 6,215,776 | | Lomp et al. | 04-10-2001 | |
| | AC | 6,317,452 | | Durrant et al. | 11-13-2001 | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | 1 ⁴ |
|--------------------|-----------------------|-------------------------|---------------------|-----------------------------------|---|--|---|----------------|
| | | Office ³ | Number ³ | Kind Code ² (if known) | | | | |
| | AD | GB | 2 222 922 | A | Spectronics Micro System | 03-21-1990 | | |
| | AE | GB | 2 264 508 | A | Mitchison, et al. | 10-07-1992 | | |

| | | | |
|--------------------|--|-----------------|--|
| Examiner Signature | | Date Considered | |
|--------------------|--|-----------------|--|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1996, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

| | | |
|----------------------------------|-------------------|------|
| Appl. No. & Conf. No. | 11532736 | 3361 |
| Filing Date | 9/18/2006 | |
| First Named Inventor | Rabinowitz et al. | |
| Group Art Unit | 3662 | |
| Examiner Name | Phan, Dao Linda | |
| Attorney Docket Number | RSM003002 | |

Sheet 3 of 3

NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published | T ² |
|--------------------|----------|---|----------------|
| | BF | PARKINSON, B.W., et al., "Autonomous GPS Integrity Monitoring Using the Pseudorange Residual," <i>Journal of the Institute of Navigation</i> (1988), Vol. 35, No. 2, pages 255-274. | |
| | BG | RABINOWITZ, M., "A Differential Carrier Phase Navigation System Combining GPS with Low Earth Orbit Satellites for Rapid Resolution of Integer Cycle Ambiguities," <i>PhD Thesis for Department of Electrical Engineering, Stanford University</i> (Dec. 2000), pages 59-73. | |
| | BH | SPIELKER, JR., J.J., "Fundamentals of Signal Tracking Theory," <i>Global Positioning System: Theory and Applications</i> (1994), Vol. 1, Chapter 7, pages 245-327. | |
| | BI | VAN DIERENDOCK, A.J., "GPS Receivers," <i>Global Positioning System: Theory and Applications</i> (1995), Vol. 1, Chapter 8, pages 329-407. | |
| | BJ | LI, X., et al., "Indoor Geolocation Using OFDM Signals in HIPERLAN/2 Wireless LANs," 11 th IEEE International Symposium on Personal Indoor and Mobile Radio Communications, PIMRC 2000, Proceedings (Cat. No. 00TH8525), Proceedings of 11 th International Symposium on Personal Indoor and Mobile Radio Communication, London, UK, Sept. 18-21, pp 1449-1453, Vol. 2, XP010520871, 2000, Piscataway, NJ, USA, IEEE, USA, ISBN, 9-7803-6463-5, Chapter I and III | |
| | BK | RABINOWITZ, M., et al., "Positioning Using the ATSC Digital Television Signal," Rosum whitepaper, Onfile 2001, XP002235053, Retrieved from the Internet on 03-13-2003 at URL www.rosun.com/whitepaper 8-7-01.pdf | |
| | BL | EP Abstract/Zusammenfassung/Abrege, 02102666.1 | |
| | BM | JP Abstract/ Vol. 007, No. 241 (P-232), 10-26-1983 & JP58 129277 A (Nihon Musen KK) 08-02-1983 | |
| | | | |
| | | | |
| | | | |

| | | | |
|--------------------|--|-----------------|--|
| Examiner Signature | | Date Considered | |
|--------------------|--|-----------------|--|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number: *Applicant is to place a check mark here if English language Translation is attached

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231